

Device Modeling Report

COMPONENTS: CAPACITOR/ ELECTROLYTIC
PART NUMBER: UUG1C472MNR1MS
MANUFACTURER: Nichicon
THERMAL: Ta= 80C (degree)



Bee Technologies Inc.

Theory: Auto Balancing Bridge Method

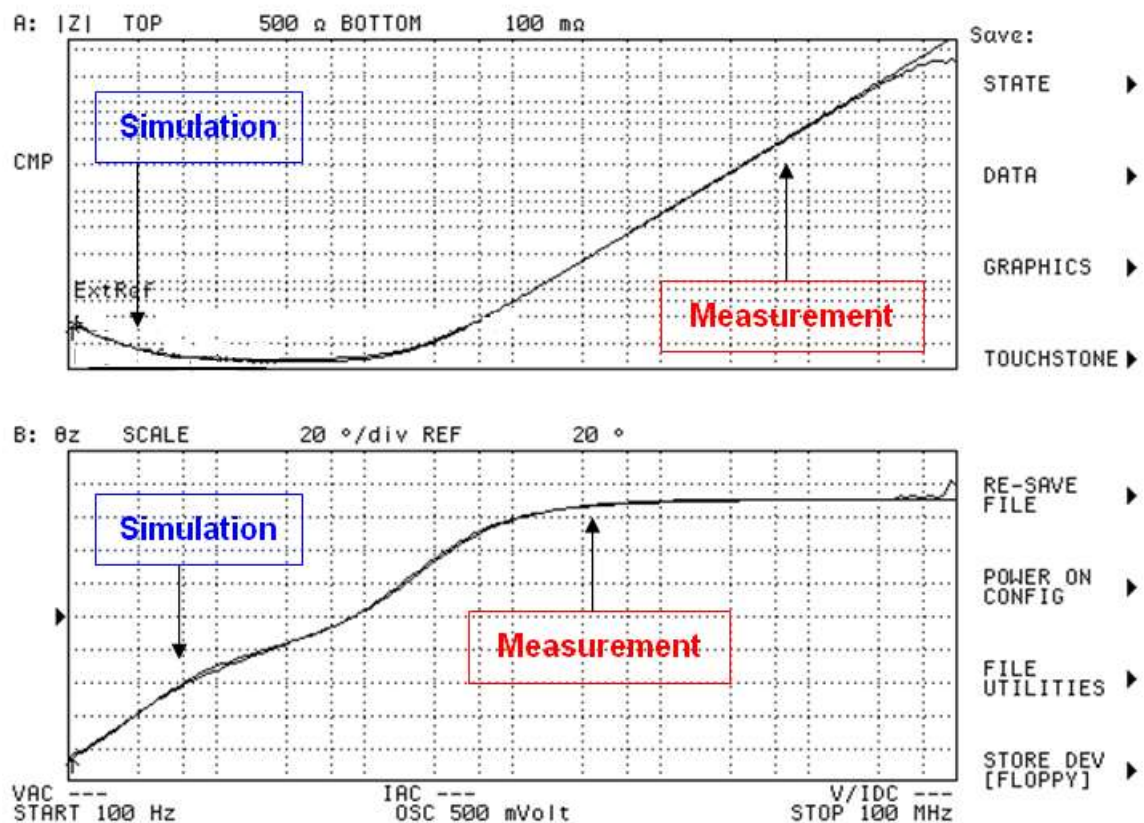
Optimization of Simulation

Range of adjustment Frequency: 100 Hz to 100M(Hz)

Frequency vs. $|Z|$ and Frequency vs. θ_z Characteristic

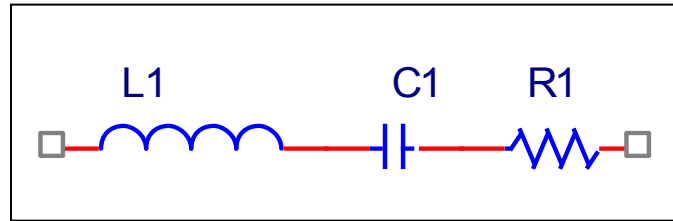
Attention)

Please use SPICE MODEL within the range from 100Hz to 100M(Hz)



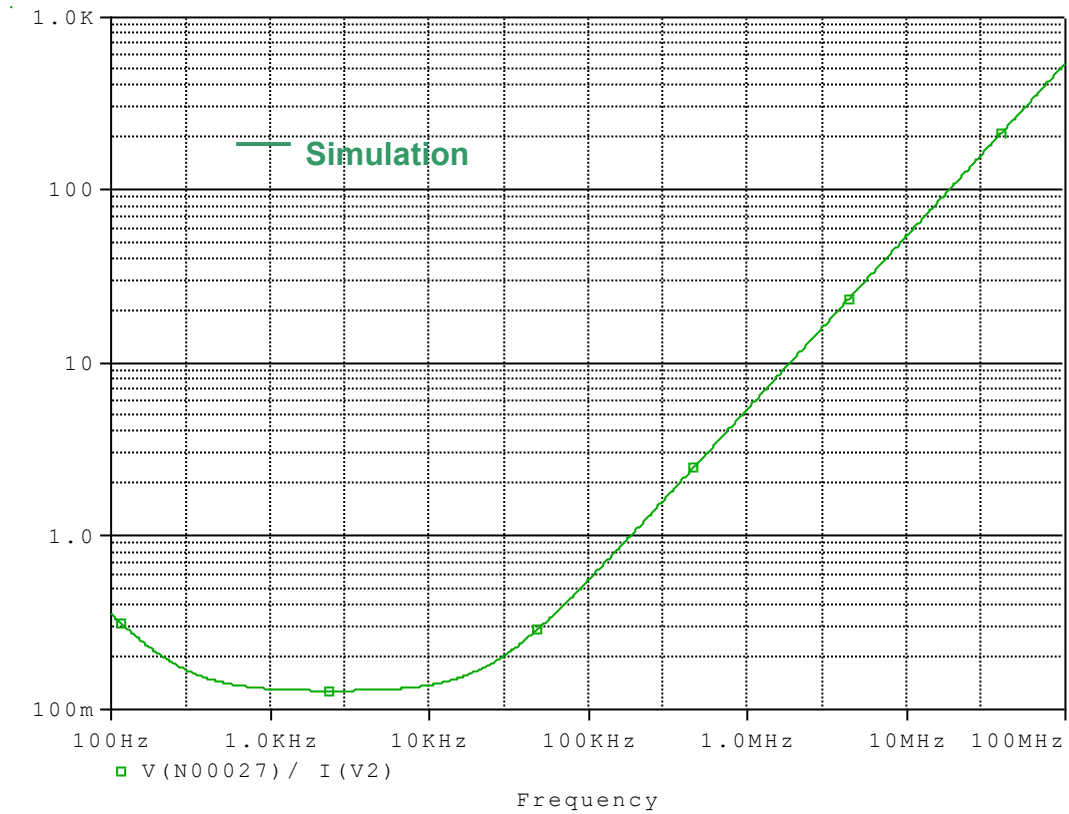
	Measurement	
R1		
C1		
L1		

Equivalent circuit

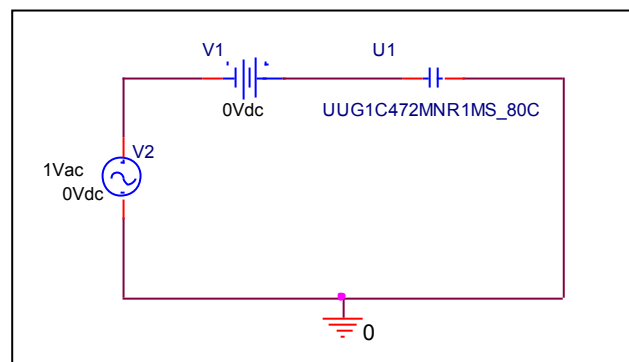


Frequency vs. |Z| Characteristic

Circuit Simulation result



Evaluation Circuit



Simulation result

Frequency (Hz)	IZI (Ω)		% Error
	Measurement	Simulation	
100	346.093m	354.994m	2.572
1K	128.232m	131.445m	2.506
10K	130.188m	138.238m	6.183
100K	558.861m	557.720m	- 0.204
1M	5.574	5.432	- 2.545
10M	53.131	54.305	2.210